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No Days 2, 5 or 6

FOR INTERNAL ROUTING ONLY

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* GPO : 1966 O-797-276

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03 09 11 37 CMP I just wanted to know - Yes, 6 degrees is too much; although it's AUTO tracking, I can just barely see the edge. 6 degrees is too much pitchdown.

03 09 12 16 LMP How's that?

03 09 12 54 CMP That's it - Whatever you have right now is a good shot.

03 09 12 56 LMP Okay.

03 09 13 12 LMP Got 5 degrees.

03 09 13 14 CMP Okay.

03 09 14 19 CMP I'm tracking on this - on this telescope, and it's - the sextant, and it's much better.

03 09 14 59 CMP Yes.

03 09 15 02 LMP Almost.

03 09 18 27 CMP You don't get -

03 09 18 47 CMP You know, even at 60 miles though, it seems like it's still that far away.

03 09 19 58 CMP There's still things coming off.

03 09 20 01 LMP There's still stuff coming out.

03 09 20 31 CMP Well, I wish I could say that we saw a volcano or something, but I'm afraid this is - just an amazing sight.

03 09 20 37 LMP I haven't seen a thing - seen a thing that looked like a volcano all day long.

03 09 20 41 CMP I haven't either.

03 09 20 43 LMP I said I haven't seen a thing that looked like a volcano all day long.

03 09 20 47 CMP Tsiolkovsky - Tsiolkovsky is the only one that has the distinct appearance to it - -

03 09 20 50 LMP Yes, the filling does.

03 09 20 54 CDR ...

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03 09 20 55 LMP Yes, please.

03 09 20 56 CDR ...

03 09 20 57 LMP Yes, I'll just kind of ease - just - Oh - okay, you coming over here, now?

03 09 21 01 LMP Sure.

03 09 21 02 CMP Have you dropped down in attitude?

03 09 21 06 CMP What's your attitude in pitch, Bill?

03 09 21 07 LMP I'm going to take a leak, now. I should have told you.

03 09 21 11 LMP About 8 degrees.

03 09 21 13 CMP Above?

03 09 21 14 LMP Below.

03 09 21 15 CMP Oh, below, yes. That's bad.

03 09 21 24 CMP Should stay at least at the horizon, if you can.

03 09 21 26 LMP Well, you liked what I had before; it's only about 2 degrees difference.

03 09 21 30 CMP Well, when it's tracking far like this, see what the trunnion is? 46 degrees?

03 09 21 37 CMP Well, maybe it does, maybe it's ...

03 09 21 41 LMP Tell you what - Why don't I give you that other camera?

03 09 21 45 LMP You've got color film; why don't you get a picture of the earth as it comes up next time?

03 09 22 05 LMP (Laughter) Well, that was real good. Okay, you ready?

03 09 22 18 CMP Have you pitched up at all?

03 09 22 26 LMP Yes, we're pitching up. Just having a changing of the watch, here.

03 09 22 34 LMP I'll get that, Frank. Go ahead.

03 09 22 38 LMP In the back - It's toward me - it's right there. ... lower.

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03 09 22 50 CMP Boy, here's another amazing sight! Watching AUTO tracking with the orange background.

03 09 23 00 CMP Man, that's an amazing sight!

03 09 23 04 CMP The landmark line of sight is going by; it's so bright, it's orange! And the star line of sight is white.

03 09 24 27 LMP Hey, let me swap you cameras there.

03 09 24 31 LMP It floated off the wall.

03 09 24 35 LMP Camera.

03 09 25 41 LMP Here you go.

03 09 28 30 CDR Bill?

03 09 28 34 LMP Yes.

03 09 28 36 CDR ...

03 09 28 39 LMP Alright.

03 09 28 40 CDR ...

03 09 28 47 CMP Still try to get a series, Frank, if you have a - ... you using 70 millimeter?

03 09 28 51 CDR Yes.

03 09 29 02 CMP Huh?

03 09 29 03 CMP Yes, yes, go ahead; I'm just - just waiting for the solution to come up.

03 09 29 13 CMP I've been using the sextant to mark -

03 09 29 53 CMP Boy, this tracking is - Yes, it is fairly easy.

03 09 32 21 LMP You boiling?

03 09 32 28 LMP Huh?

03 09 32 41 CMP Do we have LOW bit going? Maybe we ought to discuss what we're seeing here. You have some sort of tape recorder going so that we can discuss what we're seeing?

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03 09 32 50 CMP Yes, just something that I could talk for some time without - -

03 09 32 54 CDR Go ahead and ...

03 09 32 55 CMP Okay, anytime.

03 09 33 09 CMP The last two control points I've been tracking with the sextant which gives us - gives me much finer control to track the landmark with. I've been using the same landmarks as before. And the sextant magnifies the landmark, and it's very easy to maintain the sextant on the landmark.

03 09 33 29 CMP RESOLVED to MEDIUM were the control modes.

03 09 33 37 CMP On the second control point, the crater which I take, which is in the middle of Gemini, is very easy to see one side has collapsed, the side to the left. And you can see rocks and debris tumbling down. On many of the craters that go by, especially near the one on control point 1, I can see where hard rock had stayed in place around the rim of the crater as the rest of the debris had folded over into a mound down into that crater floor.

03 09 34 56 CMP I'm coming up on the crater - as a matter of fact, the Crater Slayton right now. We're going directly over it.

03 09 35 11 CMP And just beyond that one is the Crater Carr.

03 09 35 22 CMP The newer craters that surround the older ones have sharper ridges - and the - They're more roundly formed like - like cones, funnels, and along the insides are a brighter material than the other craters. And they also don't have the step functions that the bigger craters have. There's one - there's two bright craters just to the west of Slayton that have this particular characteristic.

03 09 37 55 CMP In the vicinity of the Crater Carr, it's very difficult to see the ground now; it's very bright, a uniform brightness, and the craters seem to dim out somewhat.

03 09 38 08 CMP You can still make some of the rilles and hills of the smaller craters and the white material of the newly formed ones, but - it's much more a hazy appearance than craters on either side. That must be near the sub-solar point.

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03 09 38 29 CMP Okay. You can stop it now, if you want to.

03 09 38 34 CMP Okay.

03 09 40 35 CDR You got a program alarm, Bill.

03 09 40 43 LMP What did I do wrong?

03 09 40 51 CMP Oh, counted 15 seconds from zero.

03 09 41 01 CMP Yes.

03 09 41 07 CMP Well, you got a RESTART that time.

03 09 41 10 LMP Oh, shit!

03 09 41 11 CMP Don't worry.

03 09 41 21 CMP (Singing)

03 09 41 26 CMP VERB 34, huh? Well, you gave me bum dope. Well, I'll be doggoned!

03 09 41 38 CMP ..., I guess.

03 09 41 46 CDR It's not mine.

03 09 42 52 CMP 34, ENTER.

03 09 43 06 CDR Oh, brother! Look at that!

03 09 43 16 CMP What was it?

03 09 43 18 CDR Guess.

03 09 43 20 CMP Tsiolkovsky?

03 09 43 21 CDR No, it's the earth coming up.

03 09 43 22 CMP Oh.

03 09 43 29 LMP Augh! Quit rocking the boat!

03 09 43 34 CDR What did you get, another program alarm?

03 09 43 35 LMP Yes, 1620.

03 09 43 43 CMP VERB - VERB 37, not permitted.

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03 09 43 54 LMP Fine. Okay, Jim, well, it's your time to take a rest.
03 09 43 57 CMP (Laughter)
03 09 44 00 CDR ... reach those two program alarms and the RESTART..
And it is your time to take a rest.
03 09 44 04 CMP Okay, just a minute. Let me - VERB 37 - VERB 37, ENTER;
00. Okay, we got one more coming up here.
03 09 44 18 CMP 81:43.
03 09 44 30 CMP VERB -
03 09 44 34 CDR Are you getting MSFN?
03 09 44 44 CMP Huh!
03 09 44 45 CDR Houston, Apollo 8.
03 09 44 50 CC Roger, Frank, good morning. You're loud and clear;
how me?
03 09 44 53 CDR Loud and clear.
03 09 44 54 CMP Proceed. VERB 22, ENTER.
03 09 45 00 CC Welcome back.
03 09 45 02 CDR Thank you.
03 09 45 06 CMP ENTER; proceed; VERB 25, ENTER.
03 09 45 21 CMP Minus 89, then plus 48631, ENTER; minus 00253, ENTER;
proceed.
03 09 45 54 CDR How's the SPS doing? ...
03 09 46 05 CMP VERB -
03 09 46 16 LMP What do you want, the gun? I'll hand it to you.
03 09 46 32 CMP Yes, would you, please?
03 09 46 39 CDR Where's the update book? Does anybody know?
03 09 46 44 LMP I've been looking for it.

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03 09 46 46 CMP Yes, I got it here in my hand.

03 09 46 53 CC Apollo 8, Houston.

03 09 46 56 CDR Go ahead, Houston.

03 09 47 00 CC Roger; we have a request that Jim space his marks, his five marks out a bit more slowly. If possible, we'd like to get a couple of them past the zenith. We're getting five of them with rather rapid spacing and from the geometry viewpoint, it would be better if you would slow them down a little bit and lengthen them out so as to include a couple of them past the zenith. Over.

03 09 47 27 CDR Roger; we understand.

03 09 47 36 CMP Houston, Apollo 8. That last set of marks are invalid, so disregard what came through the last time.

03 09 47 48 CC Roger; understand the last set of marks are invalid. Over.

03 09 47 52 CMP Roger, if you'd correlate with - The set I'm about to take is the last set.

03 09 48 04 CC We've got an awful lot of background noise, Jim. Could you say again, please?

03 09 48 10 CMP Roger; I'm coming up on control point 3; I tried to take another control point in between 2 and 3, but didn't do it, so I just - to get out of the program, I just marked and got out of the program.

03 09 48 25 CC Roger; understand you are coming up on 3.

03 09 49 49 CMP If I got a program alarm, disregard it - it's because I took too many marks.

03 09 51 25 CDR Huh?

03 09 51 28 CMP ...

03 09 51 35 CDR What?

03 09 51 40 CDR This time, it did though, huh?

03 09 52 03 CC Apollo 8, Houston.

03 09 52 05 CDR Go ahead, Houston; Apollo 8.

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03 09 52 10 CC

Roger; on Jim's marks, we'd like to get spacing of approximately 30 - 30 seconds between each mark. The last ones we are copying roughly 15 seconds between marks, and we would like to stretch it out even further if that is okay with you.

03 09 52 28 CMP

Okay, tell him ...

03 09 52 29 CDR

Alright.

03 09 52 30 CMP

I'll stretch her out all the way.

03 09 53 31 CMP

You got the hot water on? I can pour some hot water while I'm waiting.

03 09 53 34 CDR

Yes. Here's one for you.

03 09 53 38 CMP

Okay.

03 09 53 46 CMP

Okay, just stand by 1.

03 09 54 31 CMP

Here's one.

03 09 54 32 CDR

Thank you.

03 09 54 34 CMP

I got it.

03 09 54 41 CMP

Thank you.

03 09 55 15 CMP

Let me know if anybody else wants some.

03 09 57 31 CMP

Here it comes, Bill.

03 09 57 41 LMP

...

03 09 58 31 CMP

What's that noise?

03 09 58 35 CDR

What is that noise?

03 09 58 38 CDR

Huh?

03 09 58 41 CDR

Oh.

03 09 58 43 CMP

What was it?

03 09 58 44 CDR

Had his leg against the hose.

03 09 59 19 CMP

There you go.

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03 09 59 23 CDR ... book?

03 09 59 24 CDR I just gave it to you.

03 09 59 27 CMP Check Bill's.

03 10 01 16 CDR The program alarm just blinked.

03 10 01 18 CMP That's okay. It's below the earth.

03 10 01 45 CMP It won't drive now until it - If it's below 50.

03 10 01 53 CDR Until what?

03 10 01 54 CMP Until that trunnion gets up.

03 10 02 17 CMP Houston, Apollo 8.

03 10 02 23 CC Apollo 8, Houston. Over.

03 10 02 25 CMP Roger, Mike. I find that tracking is much easier using the sextant than the scanning telescope; you have finer control and at these orbital speeds RESOLVED to MEDIUM seemed to be the best combination.

03 10 03 05 CC Apollo 8, Houston. Do you read?

03 10 03 08 CMP Roger. Did you copy?

03 10 03 13 CC Roger; I copy that it's - Tracking is easier using the sextant than the scanning telescope; it gives you finer control, and say again after that. Over.

03 10 03 24 CMP And the combination of RESOLVED and MEDIUM is perhaps the best combination - the combination of - our speed LOW is too low. You can't catch up with the target.

03 10 03 41 CC Roger; understand that the best combination is RESOLVED and MEDIUM. LOW is just too low.

03 10 03 48 CMP Roger.

03 10 03 51 CMP You can't keep up with the landing site, I should say.

03 10 03 56 CMP There goes the trunnion now, see, Bill - Frank?

03 10 04 00 CDR Yes.

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03 10 04 02 CMP It's tracking us beneath the earth.

03 10 05 43 CMP How do you all feel?

03 10 05 44 CDR Fine. Why?

03 10 05 48 CMP I was just curious.

03 10 05 50 CDR You tired?

03 10 05 53 CMP Oh, I'm a little tired. I guess we all are.

03 10 05 57 CDR You're going to be busy right afterwards. Those last two REV's.

03 10 06 02 CMP I've got a sleep period coming up here, though, I think. Don't I?

03 10 06 04 CDR Yes, right - right after this.

03 10 06 08 CDR Let that computer rest.

03 10 06 15 CMP What do we have on our TV debut?

03 10 06 19 CDR I got that ...

03 10 06 25 CMP ...

03 10 06 27 CDR You mean on the left there?

03 10 06 29 CMP Well, it's always here; I haven't started tracking yet.

03 10 06 35 CMP Do you see it coming up already?

03 10 06 38 CDR On the left; I'm not sure if that's it or not, though, but it's a triangular-shaped mound.

03 10 06 42 CMP Oh, here we go, right now.

03 10 06 47 CMP This isn't computing the right thing, here.

03 10 07 40 CMP What's your attitude, Frank?

03 10 07 42 CDR I'm down some. You want me to pitch up?

03 10 07 45 CMP Yes.

03 10 07 46 CDR Huh?

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03 10 07 50 CMP Yes, it's down now.

03 10 09 06 LMP Got it.

03 10 09 12 CDR What are you doing, Jim?

03 10 09 14 CMP Tracking.

03 10 09 25 CMP I could easily see a LM on here.

03 10 10 10 CMP What's my trunnion and shaft?

03 10 10 13 CDR 20 and four- 15; 203 and 16, 17, 18 - -

03 10 10 18 CMP Okay.

03 10 12 21 CMP I'm through with the landing site right now. Don't touch the computer, though.

03 10 13 10 CDR Let me see - Have you got the update book, Bill?

03 10 13 21 CMP No, I gave it back to you if I recall. Did you look down in here?

03 10 13 28 CDR Huh?

03 10 13 29 CMP I did, I gave it back, because I don't think that -

03 10 13 32 CMP Houston, Apollo 8.

03 10 13 34 CDR I got it.

03 10 13 37 CC Apollo 8, Houston. Over.

03 10 13 39 CMP Roger; I'm not too sure what happened that time, Mike. I was marking on the landing site using the code, and I kept getting a large trunnion for AUTO OPTICS, and I could see that the target - the landing site was coming up, so I just went manually and marked, and yet the - the latitude and longitude was - were quite different from the nominal.

03 10 14 15 CC Roger; we copy that, Jim.

03 10 14 37 CDR Get rolled over here, Jim. Then, you can do a P52.

03 10 14 41 CMP Okay.

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03 10 15 37 CDR You might as well start shooting some of this film, Bill, because we're not going to do this converse and steric because we've got that high TV. And then we're going to get ready for TEL and knock everything else off.

03 10 15 54 CMP Bill, you want to take care of this 16-millimeter camera?

03 10 16 02 LMP What?

03 10 16 11 LMP I need a lens ...

03 10 16 49 CDR We should be able to get them on - on high gain here in a minute, Bill.

03 10 17 24 CDR Go ahead, Houston; Apollo 8.

03 10 17 28 CC Roger; we're checking into Jim's remarks on P22; and in the meantime, I have your maneuver pads and map updates at your convenience. Over.

03 10 17 39 CDR Roger.

03 10 17 42 CDR If we're going to get settled here, you want to do a P52, Jim?

03 10 17 46 CMP Yes, whenever you get settled down.

03 10 17 50 CDR How about right now?

03 10 17 54 CMP Okay. Proceed ... that inertial, and I'll have it in a jiffy.

03 10 18 01 CMP One more REV of this stuff and we're finished. No more experimentation.

03 10 18 11 CDR Go ahead with your data, Mike.

03 10 18 15 CC Okay, and before that, we'd like to take the DSE away from you, please, for a while.

03 10 18 22 CDR Alright? Is that all right, Bill?

03 10 18 26 CDR It's all yours.

03 10 18 30 CC Thank you, and we'd like you to go to POO and ACCEPT - -

03 10 40 54 LMP Go ahead with ... I'll get ...

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03 10 40 57 CDR Are you - are you comfortable?

03 10 40 59 LMP Why?

03 10 41 00 CDR I mean, do you want to sleep?

03 10 41 01 LMP No, I was just asking.

03 10 41 03 CMP ...

03 10 41 06 LMP Come again.

03 10 41 07 CDR I - I ...

03 10 41 11 LMP Go on.

03 10 41 12 CDR No, no. They've - they've got - Jesus Christ, they've got plenty of data. You can tell them almost anything ... everybody - -

03 10 41 16 CMP Okay ...

03 10 41 18 CDR Oh, I did, you're too tired; you need some sleep, and I want everybody sharp for TEI; that's just like a retro.

03 10 41 24 LMP Why don't - Hey, Frank, how about on this next pass you just point it down to the ground and turn the goddamn cameras on; let them run automatically.

03 10 41 30 CDR Yes, we can do that.

03 10 41 32 LMP Okay.

03 10 41 37 CDR Shit, I just burned this film up.

03 10 41 39 CC Apollo 8, Houston.

03 10 41 41 CDR Go ahead.

03 10 41 44 CC This REV coming up we'd like to clarify whether you intend to scrub control points 1, 2, and 3 only, and do the pseudo landing site or whether you also intend to scrub the pseudo landing site marks. Over.

03 10 41 58 CDR We're scrubbing everything; we'll - I'll stay up and point - keep the spacecraft vertical, and take some automatic pictures; but I want Jim and Bill to get some rest.

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03 10 42 11 CC Roger. Understand.

03 10 42 49 CDR Unbelievable - the detail these guys study up. A very good try, but just completely unrealistic, stuff like that. I should have --

03 10 43 05 LMP I'm willing to try it.

03 10 43 06 CDR I should have warned you. No. You try it, and then we'll make another mistake, like entering instead of proceeding or screwing up somewhere like I did.

03 10 43 14 CMP ...

03 10 43 15 CDR I want you to get your ass in bed! Right now! No, get to bed! Go to bed! Hurry up! I'm not kidding you, get to bed!

03 10 43 24 CMP ... try again?

03 10 43 26 CDR No, they said they don't want to.

03 10 43 27 LMP No, no, they said okay.

03 10 43 29 CDR Yes, really.

03 10 43 30 LMP What - what would you like me to do?

03 10 43 31 CDR Go to bed! When we come over it, we'll get that thing going when we get to daylight, and then you guys go sack out for 2 hours.

03 10 43 37 LMP Shall we - shall we do that detailed thing there, that really --

03 10 43 40 CDR No.

03 10 43 46 CMP Okay.

03 10 43 56 LMP Say, give me that lens back there, will you?

03 10 43 59 CDR Which one, Bill, this one?

03 10 44 01 LMP No, the 80.

03 10 44 02 CDR Camera, you mean?

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03 10 44 03 LMP Yes.

03 10 44 09 SC (Whistling)

03 10 44 10 CDR You haven't been in there since we've been in lunar orbit yet, have you?

03 10 44 13 LMP In where?

03 10 44 14 CDR Down below. Why don't you - why don't you - go local horizontal, sometime before you turn - We haven't shot a single high-speed picture yet, that's any good; just let me just turn the goddamn thing on prior to - -

03 10 44 30 LMP Alright.

03 10 44 31 CDR - - prior to ...

03 10 44 56 LMP This is the tail end ... this time.

03 10 45 00 CDR Huh? Are we losing it?

03 10 45 02 LMP No, I don't want to go to local horizontal yet.

03 10 45 03 CMP ...

03 10 45 05 CDR Oh, no, just go to sleep, Jim.

03 10 45 09 CDR I know how I felt, and I know how you guys do.

03 10 46 17 LMP Hey, I can see the moon out here ...

03 10 46 30 CDR Is that earth's turn on here, or what?

03 10 46 32 LMP Yes, that's what - -

03 10 46 33 CDR Huh?

03 10 46 34 LMP I - I - Yes, that's why I want to get the pictures over here.

03 10 46 36 CDR Okay.

03 10 47 31 LMP You want to put it on OMNI?

03 10 47 32 CDR Okay, give me the roll left - Which way are you going to go?

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03 10 47 36 LMP Well, let's see. I can roll to the right, and that'll keep us good, won't it?

03 10 47 39 CDR Yes.

03 10 47 44 CDR The only window that's any good - are these rendezvous - You kind of pitch it down, and you get some -

03 10 48 35 CDR Okay, which way are you headed? Oh, you're going to roll, going to roll - -

03 10 48 38 LMP We're going to roll to the right, so we can get that high gain up. Right window ...

03 10 49 04 CDR Alright, I keep expecting to be seeing the moon.

03 10 49 12 LMP Yes.

03 10 49 13 CDR Right.

03 10 49 16 LMP Well, you're going to have to just yaw towards me a little bit.

03 10 49 18 LMP ...

03 10 49 31 LMP Would you hit those lights down there with your foot, Frank?

03 10 50 37 LMP Hell, we're going away from it, huh?

03 10 50 39 CDR Huh?

03 10 50 40 LMP We're going away from it, huh?

03 10 50 42 CDR Oh, yes.

03 10 50 44 LMP Yes, sure is.

03 10 50 50 CDR I'm pitching down, but we're going that way.

03 10 50 52 LMP Are we? We're going this way?

03 10 50 53 CDR Yes, we're going that way.

03 10 50 55 LMP Oh, okay.

03 10 51 00 CDR You know, it kind of gets you down.

03 10 51 04 LMP I thought we were going - we're going towards the earth.

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03 10 51 10 IMP Why don't you snap a few? Can you see it still in your rendezvous window?

03 10 51 13 CDR See what? The earth?

03 10 51 15 LMP No, the - ground.

03 10 51 17 CDR Oh, I see, yes.

03 10 51 31 CDR That enough?

03 10 51 32 IMP Yes. What happened?

03 10 51 35 CDR Snap that thing on or we end up doing another automatic one.

03 10 51 43 CC Apollo 8, Houston; 4 minutes to LOS. You have control of the DSE now, and all your systems are looking good.

03 10 51 51 CDR Thank you very much, Mike.

03 10 51 56 CC You bet.

03 10 52 01 CDR Iovell's snoring already.

03 10 52 06 CC Yes, we can hear him down here.

03 10 54 07 LMP You going to point at the horizon, Frank?

03 10 54 10 CDR I pointed it straight down, I thought.

03 10 54 13 LMP Like when we get ready to go inertial, we get a shot of the horizon as it comes up.

03 10 54 18 CDR Well, I'm already straight down pointing ... Thought you might ... one of these ...

03 10 54 25 LMP No, I did back there.

03 10 54 36 CC Apollo 8, Houston.

03 10 54 38 CDR Go ahead.

03 10 54 41 CC We have 1 minute to LOS, Frank. You can terminate stirring up your cryos anytime, and we agree with all your flight plan changes. And have a beautiful backside; we'll see you the next time around.

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03 10 54 55 CDR Thank you. I'll get those, Bill.

03 10 54 59 LMP Have you - have you done any of the cryos?

03 10 55 03 CDR Huh?

03 10 55 20 CDR Is that thing running now?

03 10 55 24 CDR Is that thing running already?

03 10 57 18 CDR Huh? Did you put it on OFF?

03 10 57 31 LMP Here you go.

03 10 58 06 CDR We're doing fine; why don't you go to bed? I'll - Just tell me what the click - just turn that thing? Look! This thing here? Right over your head?

03 10 58 26 CDR No, I want you to get to bed. Come on now. You've been up all the time; it's in the flight plan. God damn it, go to bed! To hell with the other stuff! We'll bust our ass for it.

03 10 58 42 CDR Do I just turn that when the time comes? What do I have to do to start it?

03 10 59 53 LMP ... eighth; it's going to start with me.

03 11 02 54 LMP ... stay 1 more minute.

03 11 03 01 CDR I know it. Get going! I think this is a closed issue. Get to bed!

03 11 03 07 CDR I don't care; get to bed!

03 11 03 09 CDR No, you get to bed; get your ass to bed. You quit wasting one - one - I - I - I - I don't want to talk about it.

03 11 03 20 CDR Shut up; go to sleep, both of you guys.

03 11 03 27 CDR I'll just click it on when the time comes.

03 11 03 32 CDR You should see your eyes; get to bed!

03 11 03 35 CDR Don't worry about the exposure business, God damn it, Anders; get to bed! Right now! Come on!

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03 11 05 05 CDR I don't want ... Alright. You want me to take some pictures? Get some sleep now. You've only got a couple hours, Bill, before we're going to have to be fresh again.

03 11 05 20 CDR Yes. Okay. I'll take care of it all. Alright. I just got up, remember? I slept for 4 hours.

03 11 05 34 CDR No, I didn't.

03 11 05 40 CMP ...

03 11 05 42 CDR Yes. Go to sleep.

03 11 05 46 CDR Houston already came back and said, "Fine."

03 11 05 52 CDR Yes.

03 11 05 59 CDR A quick snooze, and you guys will feel a hell of a lot better tomorrow.

03 11 06 45 CDR Well, you're tired; it's not cold.

03 11 06 51 CMP Okay.

03 11 42 15 CDR Houston, Apollo 8.

03 11 42 20 CC Apollo 8, loud and clear.

03 11 42 22 CDR Roger.

03 11 43 22 CDR Fine, I'm fine.

03 11 53 46 CC Apollo 8, Houston.

03 11 53 47 CDR Go ahead, Houston; Apollo 8.

03 11 53 50 CC Roger, Apollo 8. A couple of notes for you. On the P52 that you're coming up to on this REV, we've looked at your state vectors and all your information. The platform looks good, and it appears that it is your option if you would like to bypass this P52; your platform will still be good at the following TEI pass. And we'd like to have your PRD reading, and I guess we are behind the sleep summary. Over.

03 11 54 27 CDR Okay. Well, Jim and Bill are both resting now, and I rested for about 3 hours or 4 hours during the period earlier today.

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03 11 54 40 CC Roger. Copy.

03 11 54 45 CDR And this PRD now reads 144.

03 11 54 51 CC PRD, 144. We have an update ready to go into your computer for the state vector if you want to go to P00 and ACCEPT.

03 11 55 05 CDR P00 and ACCEPT.

03 11 59 51 CDR Now we are standing by to copy this TEI 9 pad.

03 12 00 15 CC Okay, Apollo 8. We have completed with the computer. You can use VERB 47 to transfer, and I have the TEI 9 pad.

03 12 00 25 CDR That's Ken, isn't it? Just a minute and I'll take those.

03 12 01 06 CDR Okay. I went to P00 and then VERB 47, and I'm ready to copy.

03 12 01 12 CC Okay, do you have it in BLOCK?

03 12 01 16 CDR Say again. It's in BLOCK; Roger.

03 12 01 20 CC I say, do you have UP TELEMETRY in BLOCK?

03 12 01 22 CDR Roger.

03 12 01 27 CC Okay. This pad is a TEI 9, SPS G&N: 45597, minus 040, plus 157, 087:19:1820, plus 34188, minus 01353, plus 00780, 180, 008, 001, November Alfa, plus 00187, 34223, 313, 34021, 42, 0898, 253, 033, down 131, left 28, plus 0758, minus 16500, 12987, 36277, 14648, 16; primary star, Sirius; secondary, Rigel; 129, 155, 010, four quads, 15-second ullage, horizon on 1.2-degree window line at T minus 3; use high-speed procedure with minus Mike Alfa. After looking at the burn information from your previous SPS burns, it appears that the engine performance should give us a 3-second burn time, longer than what you have on the pad. The pad number should correspond with what you got out of the computer. So we have not factored this into the past data; however, you can anticipate the engine for a normal DELTA-V to give you a 3-second - 3.7-second burn in excess of the computed times. Over.

03 12 05 51 CDR Roger. Thank you.

03 12 06 00 CDR TEI 9, SPS G&N: 45597, minus 040, plus 157, 087:19:1820, plus 34188, minus 01353, plus 00780, 180, 008, 001, NA,

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plus 00187, 34223, 313, 34021, 42, 0898, 253, 033, down 131, left 28, plus 0758, minus 16500, 12987, plus 36277, 14648, 16; and that's Sirius and Rigel, 129, 155, 010, four-jet, 15 seconds, 1.2 the gaze on the window at T minus 3, high-speed, minus MA, engines 3.7 seconds longer than given.

03 12 07 11 CC That's affirmative, Apollo 8. And when you get around to it, if you would like for us to dump your tape, we can do that when you get on the high gain.

03 12 07 23 CDR Roger.

03 12 08 04 CDR Okay, you should have it on the high gain now, Houston.

03 12 08 11 CC Roger. Why don't you go ahead and dump the tape?

03 12 08 20 CDR Roger.

03 12 24 35 CC Apollo 8, Houston. The tape recorder is back to you.

03 12 24 42 CDR Thank you.

03 12 25 20 CMP Hey, Bill, ... aspirin.

03 12 25 24 CDR You got a headache?

03 12 25 28 CDR Hey, you don't have to tell them about aspirin. I told Berry ...; just the other two.

03 12 25 39 CDR Yes, you ought to be good and tired, too.

03 12 26 28 CDR There's a magazine floating around. Can you grab that please, Jim?

03 12 26 47 CDR Huh? It's for you to sleep.

03 12 26 51 CDR Hey, this little radiometer that I got is up to 124 now. What's yours reading?

03 12 26 55 CC Apollo 8, Houston.

03 12 26 58 CDR Go ahead.

03 12 27 02 CC We have looked at all your systems and all your trajectory information, and you have a GO for another REV.

03 12 27 12 CDR Oh, thank you.

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03 12 27 14 CDR Do what? Yes.

03 12 27 41 CDR Understand we're GO for REV 9?

03 12 27 48 CC Affirmative.

03 12 27 52 CDR I feel - I - Listen, I'll be the first to tell you I had enough sense; I went down and crapped out before.

03 12 29 01 CDR How is the weather down there, Ken?

03 12 29 06 CC Entirely beautiful; loud and clear and just right in temperature.

03 12 29 11 CDR How about in the recovery area?

03 12 29 15 CC That's looking real good.

03 12 29 17 CDR Very good.

03 12 29 25 CC Yes, they told us that there's a beautiful moon out there.

03 12 29 30 CDR Yes, I was just saying there's a beautiful earth out there.

03 12 29 36 CC It depends on your point of view.

03 12 29 38 CDR Yes.

03 12 29 55 CDR Almost - -

03 12 29 56 CC If you're looking for something to do up there, Frank, you might get that BIOMED switch over to the left position.

03 12 30 01 CDR Okay.

03 12 30 40 CDR Are you ready?

03 12 30 45 CDR 5, 4, 3 - Say again.

03 12 30 52 CDR Ken, are you re - -

03 12 30 53 CC All set.

03 12 30 54 CDR 5, 4, 3, 2, 1 -

03 12 30 58 CDR MARK.

03 12 33 37 CDR How do you read me on OMNI A, Ken?

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03 12 34 05 CDR Houston, Apollo 8. How do you read?

03 12 34 11 CC I'm reading you weak, but clear, Frank.

03 12 34 13 CDR How about this antenna? Is that any better?

03 12 34 19 CC It is a little louder.

03 12 34 24 CDR Okay.

03 12 34 35 CDR (Whistling)

03 12 35 04 CMP ... align ...?

03 12 35 06 CDR We didn't have to do one, Jim. No, they said that they'd checked it, and it looked real good, and they'd let you sleep.

03 12 39 44 CDR Hey, Ken, how'd you pull a duty on Satur - on Christmas Eve? You know, it happens to bachelors every time, doesn't it?

03 12 39 53 CC I wouldn't be anywhere else tonight.

03 12 39 55 CDR Ha, ha.

03 12 42 06 CDR Ken, how's the MSFN tracking of this lunar orbit coming out?

03 12 42 28 CC Okay, Frank. It's looking like it's coming right down the pike. It's doing just what it's supposed to, and apparently all our computer programs have got the right numbers in them because they're predicting where you're going.

03 12 42 40 CDR Are they covering any of these anomalies due to hard spots?

03 12 42 48 CC They're detectable, but they're not changing things enough to be anything more than of interest.

03 12 42 56 CDR Well, I hope they're as good with the corridor as they were with that LOI. That was beautiful.

03 12 43 03 CC It sure was. That's - that is textbook all the way.

03 12 44 26 CC Apollo 8, Houston.

03 12 44 28 CDR Go ahead.

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03 12 44 31 CC

Okay, we're about - inside 10 minutes to LOS; we'll be picking you up again at 85:40. And we'll have all of the TV types' information standing by. In the event that the situation develops again, for pointing accuracy, if I see anything that looks like the terminator or anything of that nature, I'm going to call the dark side of it 12 o'clock, and use that as a reference system, and we'll try that. If that doesn't do out any problems with camera pointing, why, I may try - call for a plus pitch, and then I'll just correct what I see to account for it.

03 12 45 14 CDR

Roger. We're not going to use that telephoto lens. But I don't believe we'll get - be able to get a picture of the earth. It's going to have to be the - the terminator and the - the lunar surface. I'm looking at the earth right now; we won't see it again during that period.

03 12 45 33 CC

Okay. Real fine, then. And next time around, why - We'll take an extra special look at all the parameters. We'll have our TEI pad for you, and we'll use the last REV for a real good hack on all systems. I'll give you a rundown by system of all things we see and where they stand.

03 12 45 54 CDR

Okay, fine.

03 12 50 17 CC

Apollo 8, Houston. We're approaching 4 minutes to LOS; all systems are GO.

03 12 50 24 CDR

Roger. Thank you.

03 13 02 19 CDR

You sick, Jim?

03 13 07 03 CDR

Yes. Fine.

03 13 07 08 CDR

I'll call you all in about 15 minutes for that TV show.

03 13 12 32 CDR

You sick?

03 13 13 27 CDR

We might as well go ahead. We might as well go ahead. Yes, we've got about 15 minutes to get set up.

03 13 13 34 CDR

Huh? Well, we've got to get the TV out now. I don't think we ought to screw around with this.

03 13 13 40 CDR

Huh?

03 13 14 34 LMP

... TV?

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03 13 14 37 CDR Well, let's talk about that; that's what I wanted.

03 13 14 40 CDR Why don't we do this? Why don't you hold it out the window, like you did, and each one of us talk - -

03 13 14 47 LMP ...

03 13 14 48 CDR Well, they want to hang onto the terminator, but we'll go out, and then you talk about what you saw, and Jim will talk about what he saw, and I'll say a couple of words. And then we'll say something about how this kind of reminds you of how it might have started, and then you read the first four of those, and Jim reads the next four, and I'll read the last two, and we'll say good night.

03 13 15 08 CMP ...

03 13 15 11 CDR No, just this one. I don't want to complicate it any more than that, because we got the high gain antenna problem and everything.

03 13 15 20 CMP Why don't we ...?

03 13 15 22 CDR Hey, wait. We've got to do it up right because there will be more people listening to this than ever listened to any other single person in history.

03 13 15 39 CMP ... first four ...

03 13 15 41 CDR Let Bill say the first four, and you say the next four, and I'll say the last two. There's no more.

03 13 16 03 CDR Just put it away; don't you have time to?

03 13 16 08 CDR Alright.

03 13 16 20 CDR No, I don't know where the tape is.

03 13 16 23 CDR Huh? What'd you say, Bill?

03 13 16 38 CDR Okay?

03 13 17 03 CDR Then as soon as we go through this, we go into a GI party. Everything gets put up, and we'll concentrate on TEI. Okay?

03 13 17 17 CMP ...

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